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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,663	09/12/2001	James D. Lyle	SII-300 [SIMG0077]	7574
60974 7590 03/11/2009 GIRARD & EQUITZ LLP 1539 Taraval St. SUITE 202 SAN FRANCISCO, CA 94116				
EXAMINER VLACHOS, SOPHIA				
ART UNIT 2611		PAPER NUMBER		
MAIL DATE 03/11/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/954,663

**Applicant(s)**

LYLE ET AL.

**Examiner**

SOPHIA VLAHOS

**Art Unit**

2611

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) See Continuation Sheet is/are allowed.
- 6) ☒ Claim(s) 106-107, 110 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ ~~Notes of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 3, 6, 7, 11, 13, 14, 22-32, 34, 35, 37-40, 44, 53-55, 58, 60-64, 73, 75, 77, 80, 96-98, 100, 102-110, 116,-124, 126-129, 131-143.

Continuation of Disposition of Claims: Claims allowed are 3,6,7,11,13,14,22-32,34,35,37-40,44,45,50,53-55,58,60-64,73,75,77,80,96-98,100,102-105 and 116-143.

### **3Response to Arguments**

1. Applicant's arguments, see "Remarks", filed 02/09/2009, with respect to the rejection of claim 22 under 35 U.S.C. 102(e) as being anticipated by Mair (U.S. 6,912,008) have been fully considered and are persuasive. The rejection of claim 22 has been withdrawn.

Applicant's arguments, see "Remarks", filed 02/09/2009, with respect to the rejection of claim 35 under 35 U.S.C. 103(a) as being unpatentable over Mair (U.S. 6,912,008) in view of Watkins (U.S. 6,507,672) have been fully considered and are persuasive. The rejection of claim 35 has been withdrawn.

Applicant's arguments filed 02/09/2009 addressing the rejection of claims 106-107, and 110 under 35 U.S.C 102(e) as being anticipated by Pasqualino (U.S. 2002/0163598) have been fully considered but they are not persuasive.

Regarding claim 106, Applicant argues (pages 34 ¶1, of "Remarks" received on 2/09/2009):

"Pasqualino fails to teach or suggest asserting or transmitting video data only during periods (separated by blanking intervals) each having duration within a first range, and asserting or transmitting auxiliary data only during other periods (also separated by blanking intervals) each having duration within a second range distinct from the first range. Pasqualino neither teaches nor suggests that any of its periods for "Audio Transport" (as shown in Pasqualino's Fig. 7) must have (or desirably have) duration in a range that is distinct from the duration of any of the periods (active video periods) during which a transmitter transmits video data."

Examiner Response:

Claim 106 recites: "...first periods each having duration within a first range and second periods each having duration within a second range distinct from the first range..." The reference to Pasqualino teaches transmission of video data, during first periods (determined when DE and A\_DE signals are both high). With respect to the first periods each having duration within a first range, the Pasqualino reference suggests a first range associated with the first period(s), and the first range corresponds to a range determined by switching signals DE or A\_DE. Fig. 7 shows boundaries of a first time period for transmitting video data, as dashed lines, at ideal switching points (at Pixel clock 0 for example). In reality, digital signals such as DE and A\_DE (and the Pixel Clk) exhibit non-ideal characteristics such as jitter, and jitter makes transitions of signal edges appear advanced or delayed compared to an ideal transition location, creating a range of transition edges.

Based on the same reasoning, the second periods occurring when control signal DE is low and A\_DE is high, have a second associated range, also caused by jittery signals, as explained for the case of the first periods. Notice also the second period(s) in the Office Action was identified as the period for "Audio Data" transport shown in Fig. 7, which excludes the LineHdr portion. The second periods have a duration defined by signals DE being low, A\_DE being high, and the 10 clock long period duration of the LineHdr.

Applicant Argues (page 34 ¶1)

"However, Pasqualino neither teaches nor suggests that transmission of video data (i.e., transmission of a signal indicative of video data) should only occur during first periods (each having duration within a first range) and transmission of auxiliary data should only occur during second periods (each having duration within a second range distinct from the first range). During the periods in which Pasqualino transmits auxiliary data (e.g., the "Period for Audio Transport" of Fig. 7), Pasqualino also transmits a line header (e.g., the "LineHdr" of Fig. 7 or line header 540 of Fig. 5). The cited teaching of Pasqualino to transmit 24 bit words of video data and 16 bit words of audio data is irrelevant to the issue as to whether Pasqualino teaches transmission of video data only during periods each having duration within a first range and transmission of auxiliary data only during periods each having duration within a second range distinct from the first range).

Examiner Response:

Examiner disagrees that Pasqualino neither teaches nor suggests that transmission of video data (i.e., transmission of a signal indicative of video data) should only occur during first periods (each having duration within a first range) and transmission of auxiliary data should only occur during second periods (each having duration within a second range distinct from the first range). The video data in Fig. 7 are transmitted during a video data interval  $\pm$  (jitter caused timing variations), and the auxiliary data are transmitted during the "Audio Data" interval during an audio data interval  $\pm$  (jitter caused by timing variations of the rising edge of signal DE).

Pasqualino identifies the durations of the video and audio data streams as 24 bit and 16 bit wide streams, which is *relevant* information, since it shows that the first and second periods are distinct from each other.

On page 35, Applicant discusses jitter, which is correctly identified as a stochastic phenomenon. However, the Pasqualino reference is still seen to suggest at least two distinct periods with respective ranges ( $\pm$  a time variation caused by jitter) when only video and only auxiliary data are transmitted. Examiner asserts the reference to Pasqualino, teaching and/or suggesting "first periods each having duration within a first range and second periods each having duration within a second range".

For at least the above reasons, the rejection of claims 106-107, and 110 under 35 U.S.C 102(e) as being anticipated by Pasqualino (U.S. 2002/0163598) is maintained.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 106-107, 110 are rejected under 35 U.S.C. 102(e) as being anticipated by Pasqualino et al., (U.S. 2002/0163598).

With respect to claim 106, Pasqualino discloses: a transmitter (Fig 2. transmitter, receiving video and audio (auxiliary) data over blocks 215 and 217 respectively paragraph [0014]); a receiver (Fig. 3, receiver, paragraph [0015]); and a TMDS-like

communication link between the transmitter and the receiver, wherein "TMDS" denotes "transition minimized differential signaling," (Fig. 2 right side, TMDS link) the link comprises at least one video channel (see Fig. 7, video data of channel 1), the transmitter is configured to transmit video data to the receiver over the link during data transmission periods separated by blanking intervals (see Fig. 7, video data, followed by a blanking period, followed by period for audio transport), wherein the data transmission periods include first periods each having duration within a first range (see Fig. 7, video data transmission has duration within a range when both DE and A\_DE signals are high (since it is understood that small delays occur when signals switch states from low to high caused by jitter, creating a range of durations), see paragraph [0090]) and second periods each having duration within a second range distinct from the first range (Fig. 7, when see Audio Data transmission period, when DE is low and A\_DE is high (that also has a range of durations since the ending transition is also jittery)), paragraph [0091], see also distinct duration of first periods and second periods, paragraph [0087] where the video data are 24 bit words and the audio data are 16 bit words and Fig. 26 shows the durations of the two periods as being distinct, and Fig. 7 shows the same pixel clock used to pack the audio and video data), the transmitter is configured to transmit the video data to the receiver over the video channel only during the first periods (Fig. 7, column video data is transmitted during the first periods (when DE and A\_DE are both high) and to transmit auxiliary data to the receiver over the video channel only during the second periods (Fig. 7 see Audio data transport period), the receiver is configured to recognize each of the second periods and operate in an



auxiliary data reception mode during each of the second periods, and the receiver is configured to recognize each of the first periods and operate in a video data reception mode during each of the first periods (Fig. 3 the receiver, extracts A\_DE and DE signals to unpack the data received over the link, see that receiver of Fig. 3 performs a processing opposite to the one performed by transmitted to pack that video and audio data).

With respect to claim 107 Pasqualino discloses: wherein each of the first periods has duration greater than a first duration and each of the second periods has duration not greater than the first duration (see above rejection of claim 106 where a video data word is a 24 bit word greater than the 16 bit audio bit word, and the audio data is not greater than 16 bit).

With respect to claim 110, claim 110 is rejected based on a rationale similar to the one used to reject claim 106 above.

***Allowable Subject Matter***

4. Claims 3, 6, 7, 11, 13, 14, 22-27, 28, 29-30, 31-32, 34-35, 37-38, 39-40, 44-45, 50, 53-55, 58, 60-62, 63, 64, 73, 75, 77, 80, 96, 97-98, 100, 102, 103, 104, 105, 116-117, 118-119, 120-121, 122, 123, 124, 126-129, 131, 132-141, 142-143 are allowed.

5. Claims 108-109 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SOPHIA VLAHOS whose telephone number is (571)272-5507. The examiner can normally be reached on MTWRF 8:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SOPHIA VLAHOS/  
Examiner, Art Unit 2611  
3/5/2009

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